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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,034	11/13/2001	Atsushi Hayami	0102/0188	6588

21395 7590 01/12/2005

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EXAMINER
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BAYARD, EMMANUEL

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/987,034

Applicant(s)

HAYAMI ET AL.

Examiner

Emmanuel Bayard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-34 is/are allowed.
- 6) ☐ Claim(s) 35-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weng et al U.S. patent No 5,574,448 in view of Asada et al Pub No 2003/0115533 A1.

As per claims 35 and 38, Weng et al teaches a demodulation apparatus comprising: means for retrieving is the same as the claimed (recovering) state information from a sequence of code words (see col.4, lines 43-46), the state information representing which of encoding tables has been used in generating a code word immediately following every code word of interest (see fig.2 element 16 and col.4, lines 51-60); means for demodulating the code word (see figs.1 and 4 element 30 and col.4, lines 43-44) of interest into an original code word by referring to a decoding table (see col.5, lines 31-40) in response to the generated state information; means for detecting occurrence of a specified run length in the sequence of code words; and means for reproducing (see figs.4, 6 element 31 and col.3, lines 45-47 and col.4, lines 46-49 and col.6, lines 18-21) auxiliary information from the sequence of code words in response to the detected occurrence run length limitations.

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However Weng et al does not teaches means for detecting a frequency of occurrence of a specified run length in the sequence of code words.

Asada et al teaches means for determining a frequency of occurrence of a specified run length in the sequence of code words (see page 1, paragraph [0007]).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Asada et al into Weng as to calculate a critical length by determining the signal to noise ratio for a frequency and determining a binary length based upon the number of source symbols as taught by Asada (see page 1 paragraph [0007]).

As per claims 36 and 39, Weng and Asada in combination would include means for decrypting encryption-resultant main information represented by a sequence of original code words in response to the reproduced auxiliary information as to accurately recover the original data signal.

As per claims 37 and 40, Weng and Asada in combination would include means for descrambling scrambling-resultant main information represented by a sequence of original code words in response to the reproduced auxiliary information as to accurately recover the original data signal.

#### ***Allowable Subject Matter***

3. Claims 1-34 are allowed over the prior art of record.

#### ***Conclusion***

4. The prior-art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Tsang et al U.S. patent No 6,288,655 B1 teaches encoding and decoding techniques for data in 24-bit sequence.

Waldman et al U.S. patent No 4,942,467 teaches a predictor controlled encoder for digital transmission systems.

Furuta U.S. patent No 4,056,828 teaches a run length encoding and decoding.

Weng U.S. patent No 5,184,125 teaches a data encoding and demodulation.

Weng et al U.S. patent No 5,631,909 teaches a method and apparatus for determining burst.

Hinedi et al U.S. patent No 6,263,466 B1 teaches a system and method of separately coding the header and payload.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 571 272 3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard  
Primary Examiner  
Art Unit 2631

1/10/05



EMMANUEL BAYARD  
PRIMARY EXAMINER